

Kentucky Occupational Safety and Health Surveillance

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Annual Report- Occupational Safety and Health Surveillance (7/1/12- 6/30/13)

State: Kentucky

Principal Investigator: Terry Bunn

Program Type: Fundamental- Kentucky Occupational Safety and Health Surveillance (KOSHS) program

I. MAJOR OUTPUTS/PRODUCTS:

a. Reports

1. Kentucky Injury Prevention and Research Center, 2013. Drug Overdose Morbidity and Mortality in Kentucky, 2000- 2010, December 2012. The Lexington Herald Leader, and at least 18 national media outlets picked up the story and KOSHS personnel were interviewed.
2. Kentucky Injury Prevention and Research Center, 2013. Occupational Health in Kentucky Counties.
3. Kentucky Injury Prevention and Research Center, 2012. KOSHS Annual Report 2012.

b. Publications

1. Bunn, TL, Singleton M, Slavova, S, Nicholson V. 2013. Concordance of Identified Drugs in Injured Motor Vehicle Drivers Using Linked Motor Vehicle Crash, Emergency Department, and Inpatient Hospitalization Datasets. *Traffic Inj Prev* (accepted).
2. Slavova, S, Bunn, TL, Singleton, M, Bush, H, Livingston, S. 2012. Emergency Department Visits and Hospitalizations with Concussion Diagnoses. *J KY Med Assoc* 110:191-198.

c. Presentations

1. Slavova, S, Bunn TL. Evaluation of the Occupational Health Indicator for Work-Related Low Back Disorder Hospitalizations and its Potential for Comprehensive Surveillance of Work-Related Low Back Disorders. AIHce Meeting, May 18, 2013. Montreal, Canada.
2. Bunn, TL, Slavova, S. Identification of Drugs in Injured Drivers. APHA Meeting, October 29, 2012. San Francisco, CA.
3. Bunn, TL. Getting High on Prescription Drug Safety in Kentucky- Research to Policy. SouthON Meeting, December 4, 2012. Tampa, FL.
4. Bunn, TL, Slavova, S. Appalachian Mountain High: Workplace Drug Overdoses. Kentucky Governor's Safety and Health Conference, May 8, 2013. Louisville, KY.
5. Bunn, TL, Slavova, S. Validation of ISW7 ICD-10 Definition for Acute Drug Poisoning Deaths- Level I/II Results. Safe States meeting, June 4, 2013. Baltimore, MD.
6. Slavova, S, Bunn, TL. Validation of ISW7 ICD-10 Definition for Acute Drug Poisoning Deaths- Level I/II Results. CSTE meeting, June 8, 2013. Pasadena, CA.

d. Partnerships

1. **Work-Related Dermatitis.** The KOSHS program is collaborating with the CT and MI state-based occupational health surveillance programs on Behavioral Risk Factor Surveillance System (BRFSS) self-reported work-related dermatitis data. The results are currently being developed into a multi-state manuscript for peer-review.
2. **Occupational Heat-Related Illness.** The KOSHS program developed a work-related heat illness indicator with the LA, NC, and FL state-based occupational health surveillance programs that will be presented to the state-based surveillance

indicator workgroup for adoption by all NIOSH-funded states, and collaborating on a multi-state manuscript for peer-review.

3. **SouthON:** The KOSHS program has been instrumental in the establishment and maintenance of the SouthON. Our 2nd SouthON meeting was December 4, 2012, in Tampa, FL; 45 participants attended and said that learning about state activities was the most valuable information taken away from the meeting; 94% said they would attend future SouthON meetings.
4. **SouthON:** CSTE, with Terry Bunn as the Principal Investigator, submitted a SouthON conference grant proposal to NIOSH to support the 2013, 2014, and 2015 SouthON meetings on August 8, 2012. The grant was not funded.
5. **CSTE Drug Overdose Workgroup:** The KOSHS program participates in a CSTE Drug Overdose Workgroup that is testing ISW7 Consensus Recommendations for Poisoning Surveillance mortality/morbidity drug poisoning definitions, reporting, and practical recommendations. KOSHS performed a multi-state epidemiological mortality data analysis to understand drug overdose coding, compare drug overdose deaths by intent, and identify drug abuse within working populations and in the workplace.

II. INTERMEDIATE OUTCOMES:

a. Scientific Article Citations

1. KOSHS peer-reviewed articles were cited 58 times as of March 15, 2013.

b. KOSHS/FACE website file downloads.

1. From July 1, 2012- June 30, 2013-- 10,741 KOSHS/FACE web file documents were downloaded from the website.

c. Commercial Carrier Safety Training.

1. Upon request by the KMTA, the FACE program testified before the Senate Transportation Committee on February 27, 2013, on behalf of Senate Bill 96 that was passed and mandates safety training of commercial carriers registering for interstate licenses for their drivers annually. FACE has an integral role in the commercial driver safety training that includes materials on fatigue/distraction.

d. Probabilistic Linkage of Trauma Registry and CRASH databases.

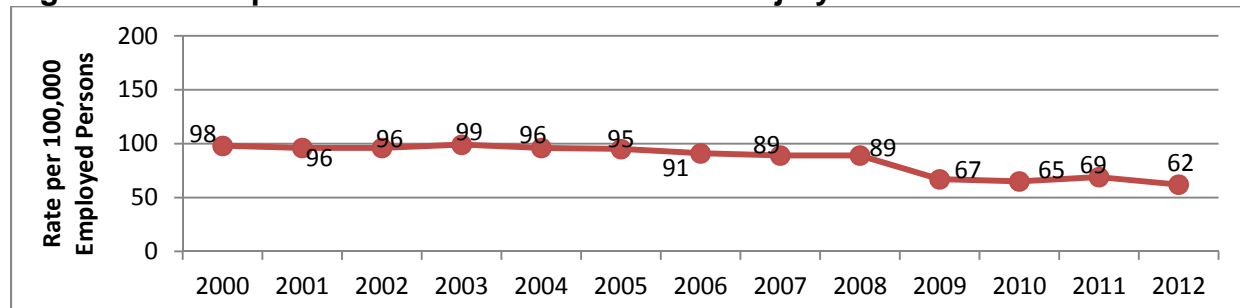
1. Through KOSHS surveillance of drugs in motor vehicle collisions, and hospitalizations, supplemental funding was leveraged from NHTSA for the linkage of trauma registry and CRASH data to improve the quality of data elements that identify the presence of drugs and alcohol in injured drivers.

III. END OUTCOMES:

From 2000-2012, occupational death numbers and rates significantly decreased.

FACE evaluated motor vehicle injuries since they are a state target priority area.

Figure 20. Occupational Motor Vehicle Collision Injury Rates- Workers' Claims



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State: Kentucky

Principal Investigator: Terry Bunn

Program Type: Fatality Assessment and Control Evaluation (FACE) program

IV. MAJOR OUTPUTS/PRODUCTS:

a. FACE Reports

1. **11KY001-** "Semi-Truck Driver Dies after Being Struck by Flatbed Driver in Crossover Collision" involving an unsecured ladder. KY FACE collaborated with the American Ladder Institute on a poster that depicts 1) a secured ladder in a pickup; and 2) an unsecured ladder. The poster is to be distributed to ladder manufacturers, hardware stores, and Home Depot.
2. **11KY031-** "Two Semis Collide - Fire Ensues; Both Drivers Perish".
3. **11KY072-** "Owner/Operator Hauling Asphalt Flux Dies after Driving into a Ravine and Striking Trees" was disseminated; 4 companies responded "Good" or "Excellent" and all used the report in safety trainings, and/or distributed to drivers and company owners; all requested that coworkers be added to the listserv.
4. **12KY011-** "Truck Driver Dies When Tractor-Trailer Overturns after Leaving Road". Very positive comments included: "The work your team performs is exceptional and unfortunately needed. Our intent is to reduce the number of these incidents by introducing technologies that give drivers time to respond/prevent these types of accidents. Thanks for keeping this information available to the public."
5. **12KY026-** "5-Passenger Van Monitor Dies After Crash".
6. **12KY037-** "Male Worker Dies When a Car Driven by Coworker Unintentionally Crashes into Him" recommended that employers provide safe, protected employee break areas and factory parking lots be designed to minimize pedestrian and vehicle conflict. In response to FACE recommendations, the company now requires breaks to be taken in designated break areas and installed an outside break area in a green space between two buildings completely surrounded by concrete.

b. Reports

1. Workers Killed Due to Driver Distraction, Hazard Alert, 11(2), April 2013.
2. FACE Annual Report 2012.
3. Drivers Killed due to Tire Failures, Hazard Alert, 11(1), February 2013.

c. Publications

1. Bunn, TL, Slavova, S, Robertson, M. 2012. Crash and Burn? Vehicle, Collision and Driver Factors that Influence Motor Vehicle Collision Fires. *Accid Anal Prev* 47:140-145. The vehicle fire publication and press release was published on the Fleet Owner website and on the ADS Logistics blog.
2. Bunn, TL, Slavova, S, Robertson, M. 2013. Motor Vehicle Injuries among Semi Truck Drivers and Sleeper Berth Passengers. *J Safety Res* 44:51-5.
3. Bush AM, McKee SE, Bunn TL. 2013. Multiple jobholder mortality patterns in Kentucky: An examination of occupational fatalities. *Am J Ind Med*. 56(8):881-8.

d. Presentations

1. Bunn, TL. KY FACE program. College of Public Health- Injury Prevention and Control class- April 9, 2013.
2. Bunn, TL. KY FACE program, FACE meeting, Morgantown, WV, April 30, 2013.

3. Bunn, TL, Slavova, S. Appalachian Mountain High: Workplace Drug Overdoses. Kentucky Governor's Safety and Health Conference, Louisville, KY, May 8, 2013.

Partnerships

e. Collaborations

1. **New York Center for Agricultural Medicine and Health (NYCAMH).** The FACE program is collaborating with Dr. Julie Sorensen in NYCAMH on a study to identify counties in five states (Kentucky, Illinois, West Virginia, Ohio, and Pennsylvania) that are at risk for tractor rollover injuries and fatalities. The goal of the study is to calculate tractor rollover fatality rates in all 400 counties and to examine trends over time.
2. **FACE Data Requests.** Data requests are completed by the FACE program on a routine basis. For example, farm-related fatalities were provided to Dr. Deborah Reed in the University of Kentucky College of Nursing and the following response was received, "Thank you so much, Nancy! It's just what we needed!"

V. INTERMEDIATE OUTCOMES:

1. **Distracted Driving Haz Alert Dissemination.** Responders said, 1) "We will use the information to reinforce our existing programs"; 2) "Present to our member insureds as a loss prevention asset to their organization"; 3) "It is helpful that alternative behaviors were given in addition to the statements of what not to do. Often we see statements of what not to do with no hint of proposed safe ways of getting the job done; Thank you for this"; and 4) "great job folks. Please keep sending me these emails"
2. **Sleeper Berth Study Published in the Journal of Safety Research.**
 - a. Interviewed by Senior Editor of Fleet Owner and American Trucker who published study results on March 19, 2013, in Fleet Owner.
 - b. Medical Express and CDL Jobs reported the study online on March 13, 2013.
 - c. "Terry, Thank you very much for sending your study that was published in the Journal of Safety Research. A subject of great interest to us at FMCSA. I will be sure to circulate widely. Best wishes, Bill".
 - d. Meeting with IMMI on 4/30/13; IMMI is a primary restraint maker. With our specific commercial motor vehicle interest, he told us about some of the innovative systems they have designed to improve the driver's safety in certain kinds of crashes. He also told us about High Visibility Webbing developed so that truck drivers wearing seatbelts are more easily seen so that officers do not have to stop and pull them over. He talked to us at length about a tent-like sleeper berth occupant restraint system. We discussed collaborations on sleeper berth restraint system redesign and IMMI engineer involvement, and a facility visit.
3. **Drivers Killed Due to Tire Failures.** Several survey respondents noted changes in their workplace as a result of the report and shared the report information. UPS Freight said "Hi Medearis, I always appreciate your e-mails. I think learning from incidents that have happened in the workplace can be very powerful. Take care, John". Two other stakeholders responded directly: "Thank you for the great material" and "Thank You for the report. Will post on bulletin board".
4. **Heat Stroke Haz Alert.** Two vending company respondents said they would distribute the alert to all employees. A private industry said that they would use the haz alert as an outline for their safety meetings on heat related issues. A solid

waste hauler said “the alert serves as a great way to remind the operations supervisors and get the issue back on the ‘front burner’”.

5. **Web-based Success Stories.** The KOSHS program collaborated with CSTE, and MI, NJ, and CA FACE programs on a standardized template for state occupational health success stories to be published on the CSTE website. The template was adopted by the funded state-based occupational health surveillance programs and the first success story submissions are due to CSTE on March 25, 2013.
6. **Commercial Driver Fatigue Toolkit.** A fatigued driver toolkit was developed and disseminated to 2,607 trucking company stakeholders on March 12, 2013. The toolkit contains a digital FACE video on a sleepy driver fatality, recommendations to combat fatigue, and company safety training resources related to sleepiness and fatigue. Survey respondents said they would do something differently in their workplace as a result of the toolbox. Trucking company responses included: 1) “We will use in worker training or safety meetings”; 2) “We’ll distribute directly to workers and use in worker safety training or safety meetings”; 3) “As a result of the toolkit, we’ll conduct training on driver fatigue, distribute directly to workers, company owners, managers, post on the bulletin board or website, and use in worker training.” “Thank you for the great training tools”; and 4) “Will distribute to company owners, and managers, and use in safety training”. Women in Trucking posted the toolkit to Facebook and LinkedIn pages and wrote an article.
7. **Evaluation.** The NIOSH Office of the Director evaluated the KY FACE surveillance system. The report, dated October 22, 2012, concluded that the FACE program was a “robust surveillance system that collects valuable information not completely captured by other sources and alerts workers to potential hazards.” Recommendations included 1) development of an electronic system for data sources where data are still being collected manually to improve simplicity and timeliness; 2) launching a social media initiative to address usefulness; and 3) increasing awareness and training staff from other groups involved in investigations to improve acceptability through coordination with other organizations. In response to the recommendations, the FACE program: 1) launched a FACE Facebook page in March 2013 to improve usefulness; and 2) participates in coroner trainings to improve acceptability of FACE surveillance.

II. END OUTCOMES:

From 2000-2011, occupational fatality rates significantly decreased.

Figure 2. Fatal Work-Related Injury Rates in Kentucky Compared to US Rates

